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Education

PhD	2015	University of Nebraska-Lincoln	Geology
MS	2002	Virginia Tech	Geology
BS	2000	University of Nebraska-Lincoln	Geology

Employment

Full-time appointments

2015-present	Assistant Professor, Conservation and Survey Division, School of Natural Resources, UNL
2008-2015	Geologist, Conservation and Survey Division, School of Natural Resources, UNL
2004-2008	Water Resources Specialist, Lower Platte South Natural Resources District
2003-2004	Groundwater Geologist, Nebraska Department of Environmental Quality

Temporary and student employment

2003	Geologist Intern, Phillips Petroleum Company
2003	Teaching and Research Assistant, University of Wisconsin-Madison
2000-2002	Teaching and Research Assistant, Virginia Tech
1998-1999	Wellhead Protection Intern, Nebraska Department of Environmental Quality

Awards

- 2015 Myerly-Martin Award for Outstanding Work in Sedimentology and Paleontology
- 2014 John C. Frye Memorial Award for “The Groundwater Atlas of Nebraska”
- 2009 School of Natural Resources Staff Recognition Award

PhD Dissertation

Planform asymmetry and stratigraphic variability of river delta deposits: Holocene examples and case studies of the Ferron Sandstone (Cretaceous), Utah, U.S.A.
Advisor: Christopher R. Fielding, Ph.D., Department of Earth and Atmospheric Sciences, UN-L

Peer-Reviewed Journal Articles

- Joeckel, R.M., Diffendal, R.F., Hanson, P.R., **Korus, J.T.**, *accepted*, Geologic mapping of Nebraska and the Great Plains: Old rocks, new maps, fresh insights, *submitted 06-16-2017 to Great Plains Research*
- Korus, J.T.**, Gilmore, T.E., Waszgis, M.M., Mittelstet, A.R., 2017, Unit-bar migration and bar-trough deposition: impacts on permeability and grain size heterogeneity in a sandy streambed, *Hydrogeology Journal*, *published online September 9, 2017*
- Korus, J.T.**, Fielding, C.R., 2017, Hierarchical architecture of sequences and bounding surfaces in a depositional dip transect of the fluvio-deltaic Ferron Sandstone (Turonian), southeastern Utah, U.S.A., *Journal of Sedimentary Research*, v. 87, p. 897-920, doi: 10.2110/jsr.2017.50
- Korus, J.T.**, Joeckel, R.M., Divine, D.P., Abraham, J., 2017, 3-D architecture and hydrostratigraphy of cross-cutting buried valleys using airborne electromagnetics, glaciated Central Lowlands, Nebraska, U.S.A., *Sedimentology*, v. 64, p. 553-581, doi: 10.1111/sed.12314
- Burberry, C.M., Joeckel, R.M., **Korus, J.T.**, 2015, Post-Mississippian tectonics of the Nemaha Tectonic Zone and Mid-Continent Rift System, SE Nebraska and N Kansas. *The Mountain Geologist*, v. 52, p. 47-73.

- Korus, J.T.**, Fielding, C.R., 2015, Asymmetry in Holocene river deltas: patterns, controls, and stratigraphic effects. *Earth Science Reviews*, v. 150, p. 219-242.
- Korus, J.T.**, Fielding, C.R., 2015, Enhanced bioturbation on the down-drift flank of a Turonian asymmetric delta: Implications for seaway circulation, river nutrients, and facies models. *Sedimentology*, v. 62, p. 1899-1922; doi: 10.1111/sed.12213
- Joeckel, R.M., Wooden, S.R., Jr., **Korus, J.T.**, Garbisch, J.O., 2014. Architecture, heterogeneity, and origin of late Miocene fluvial deposits hosting the most important aquifer in the Great Plains, USA. *Sedimentary Geology*, v. 311, p. 75-95.
- Joeckel, R.M., **Korus, J.T.**, 2012, Bayhead delta interpretation of an Upper Pennsylvanian sheetlike sandstone body and the broader understanding of transgressive deposits in cyclothems. *Sedimentary Geology*, v. 275-276, p. 22-37.
- Korus, J.T.**, Burbach, M.E., 2009, Analysis of aquifer depletion criteria with implications for groundwater management. *Great Plains Research*, v. 19, p. 187-200.
- Korus, J.T.**, Kvale, E.P., Eriksson, K.A., Joeckel, R.M., 2008, Compound paleovalley fills in the Lower Pennsylvanian New River Formation, West Virginia, USA. *Sedimentary Geology*, v. 208, p. 15-26.

Manuscripts in Preparation, Review, or Revision

- Korus, J.T.**, Hensen, H. J., Depletion percentage and non-linear transmissivity as design criteria for groundwater-level observation networks, *in preparation*

Edited Volumes

- Korus, J.T.** (ed.), 2014, Geologic Field Trips along the Boundary between the Central Lowlands and Great Plains: 2014 Meeting of the GSA North-Central Section. Geological Society of America Field Guide 36, 63 p.

Refereed Geological Survey Bulletins

- Korus, J.T.**, Joeckel, R.M., Divine, D.P., 2013, Three-dimensional hydrostratigraphy of the Firth, Nebraska area: Results from Helicopter Electromagnetic (HEM) mapping in the Eastern Nebraska Water Resources Assessment (ENWRA). Geological Survey Bulletin 3 (new series), Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 100 p.
- Hanson, P.R., **Korus, J.T.**, Divine, D.P., 2012, Three-dimensional hydrostratigraphy of the Platte River Valley near Ashland, Nebraska: Results from Helicopter Electromagnetic (HEM) mapping in the Eastern Nebraska Water Resources Assessment (ENWRA). Geological Survey Bulletin 2 (new series), Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 51 p.

Geological Survey Publications

- Divine, D.P., Joeckel, R.M., **Korus, J.T.**, 2015. Basic guide for description of cuttings from boreholes in Nebraska. Educational Circular 25, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 36 p.
- Korus, J.T.**, 2013. Type log showing stratigraphic units of the Forest City basin in Nebraska. Correlations and Cross Sections (CCS) 19, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln.
- Korus, J.T.**, Howard, L.M., Young, A.R., Divine, D.P., Burbach, M.E., Jess, J.M., Hallum, D.R., 2013. The Groundwater Atlas of Nebraska. Third (revised) edition, Resource Atlas No. 4b/2013, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 64 p.

- Divine, D.P., **Korus, J.T.**, 2013, Three-dimensional hydrostratigraphy of the Swedeburg, Nebraska area: Results from Helicopter Electromagnetic (HEM) mapping in the Eastern Nebraska Water Resources Assessment (ENWRA). Geological Survey Bulletin 5 (new series), Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 31 p.
- Korus, J.T.**, Divine, D.P., Hanson, P.R., Dillon, J.S., 2012, Three geologic cross sections across portions of eastern Nebraska showing Quaternary lithologic units and stratigraphy of uppermost bedrock. Correlations and Cross Sections 18, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln.
- Divine, D.P., **Korus, J.T.**, 2012, Three-dimensional hydrostratigraphy of the Sprague, Nebraska area: Results from Helicopter Electromagnetic (HEM) mapping in the Eastern Nebraska Water Resources Assessment (ENWRA). Geological Survey Bulletin 4 (new series), Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 32 p.
- Young, A.R., Burbach, M.E., **Korus, J.T.**, Howard, L.M., 2012, Nebraska statewide groundwater-level monitoring report. Nebraska Water Survey Paper Number 80, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 23 p.
- Korus, J.T.**, Joeckel, R.M., Hanson, P.R., Goeke, J.W., Lackey, S.O., Burbach, M.B., 2011, Reference list for describing cuttings and cores of sediments and sedimentary rocks in Nebraska. Educational Circular 21, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln.
- Korus, J.T.**, Joeckel, R.M., 2011, Generalized geologic and hydrostratigraphic framework of Nebraska 2011, ver. 2. Geologic Maps and Charts 38, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln.
- Korus, J.T.**, Burbach, M.E., Howard, L.M., 2011, Nebraska statewide groundwater-level monitoring report. Nebraska Water Survey Paper Number 79, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 23 p.
- Korus, J.T.**, Burbach, M.E., Howard, L.M., Joeckel, R.M., 2010, Nebraska statewide groundwater-level monitoring report. Nebraska Water Survey Paper Number 77, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 19 p.
- Korus, J.T.**, Burbach, M.E., 2009, Nebraska statewide groundwater-level monitoring report. Nebraska Water Survey Paper Number 76, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 38 p.
- Divine, D.P., Joeckel, R.M., **Korus, J.T.**, Hanson, P.R., Lackey, S.O., 2008, Eastern Nebraska Water Resources Assessment (ENWRA): Introduction to a hydrogeological study. Geological Survey Bulletin 1 (new series), Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln, 31 p.

Geologic Maps

- Young, A.R., **Korus, J.T.**, Howard, L.M., Waszgis, M.M., 2016, Surficial Geology of the Raymond 7.5 Minute Quadrangle. Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln. 1:24,000.
- Korus, J.T.**, Howard, L.M., 2015, Surficial Geology of the DuBois 7.5 Minute Quadrangle. Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln. 1:24,000.
- Korus, J.T.**, Howard, L.M., Kuzila, M.S., Joeckel, R.M., 2014, Surficial Geology of the Table Rock 7.5 Minute Quadrangle. Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln. 1:24,000.
- Joeckel, R.M., Wooden, S.R., **Korus, J.T.**, Howard, L.M., 2011, Surficial Geology of the Ogallala 7.5 Minute Quadrangle. Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln. 1:24,000.

Open-file Reports

- Korus, J.T.**, Hallum, D.R., Waszgis, M.M., 2016, Results of Test-Hole Drilling for Observation Well Planning in the Middle Republican Natural Resources District, June 2016. Open-File Report Number 135, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln.
- Korus, J.T.**, 2011, Groundwater Flow Model and Analysis of Quantity Triggers for the Lower Salt Creek Groundwater Reservoir, eastern Nebraska. Open-File Report Number 108, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln.
- Divine, D.P., Ross, S., **Korus, J.T.**, 2010, Compilation of Geologic Cross Sections of Eastern Nebraska. Open-File Report Number 109, Conservation and Survey Division, School of Natural Resources, University of Nebraska-Lincoln.

Invited Commentaries and Editorials

- Korus, J.T.**, 2018, Nebraska GeoCloud brings high-tech hydrogeologic data down to earth. *Water Well Journal*, v. , p. 10-11.
- Burbach, M.E., Young, A.R., **Korus, J.T.**, 2014, The potential impacts of projected changes in climate on groundwater resources in Nebraska, *in* Bathke, D.J., Oglesby, R.J., Rowe, C.M., and Wilhite, D.A., *Understanding and Assessing Climate Change: Implications for Nebraska*. University of Nebraska-Lincoln, 73 p.

Extension Publications

- Gilmore, T.E., **Korus, J.T.**, Ingram, E., Young, A. (2017) Groundwater Quantity. Interactive Educational Module for Natural Resources District Board Members and Staff, University of Nebraska-Lincoln School of Natural Resources and Department of Biological Systems Engineering. Created October 2017. <http://nebraskawatershedscience.org/module1/>
- Gilmore, T.E., **Korus, J.T.**, Ingram, E. (2017) Groundwater-Surface Water Interaction. Interactive Educational Module for Natural Resources District Board Members and Staff, University of Nebraska-Lincoln School of Natural Resources and Department of Biological Systems Engineering. Created November 2017. <http://nebraskawatershedscience.org/module2/>
- Gilmore, T.E., **Korus, J.T.**, Ingram, E. (2017) Watershed Management Basics. Interactive Educational Module for Natural Resources District Board Members and Staff, University of Nebraska-Lincoln School of Natural Resources and Department of Biological Systems Engineering. Created November 2017 (in review). <http://nebraskawatershedscience.org/module3/>

Students Advised or Directed

- 2017 – present Jacqueline Polashek, MS supervisor
- 2016 – present Wilhelm Fraundorfer, MS supervisor
- Recipient of Geological Society of America Graduate Student Research Grant
 - Recipient of GSSI-AGU Graduate Student Research Grant
 - Recipient of Yatkola-Edwards Graduate Student Research Grant
- 2017 Alexa Davis, ARD undergraduate research award recipient
- 2017 Owen George, UCARE undergraduate research award recipient
- 2017 Robert Clark, undergraduate Senior Thesis research
- 2015 – 2016 Jordan Shields, reader for undergraduate Senior Thesis
- 2016 Alex Hraby, UCARE undergraduate research award recipient
- 2016 Griffin Nuzzo, ARD undergraduate research award recipient

Grants

Watershed science curriculum: Training resources for water resources managers in Nebraska and beyond. Nebraska Extension Innovation Grant, \$7,500 (2017 – 2018), Co-PI

Application of isotopic tracers to determine water residence times in multi-scale water management. IANR-FAPESP-SPRINT, \$19,983 (2017 – 2019), Co-PI (PI: Troy Gilmore)

Middle Republican Natural Resources District Observation Wells. Nebraska Environmental Trust, \$70,500 (2017 – 2019), PI

Graduate student support grant. Robert B. Daugherty Water for Food Global Institute, \$16,924 (2017 – 2018), PI

Nebraska GeoCloud and Airborne Electromagnetic (AEM) Data Integration. State of Nebraska Water Sustainability Fund, \$264,014 (2017 – 2021), PI (Co-PI: Katie Cameron).

Nebraska Basin CarbonSAFE Integrated Pre-Feasibility Project. Department of Energy, \$116,236 (2017 – 2018), Co-PI

A Pilot Watershed Management Curriculum for Water Resources Managers. Nebraska Academy of Sciences PIE Grant Program, \$3,000 (2017), Co-PI: Troy Gilmore.

Middle Republican Hydrogeologic Framework and Groundwater Observation Network. Middle Republican Natural Resources District, \$33,530, 5/24/2016–5/23/2017, PI.

New mapping of the surficial geology of the Raymond 7.5 minute quadrangle. Department of the Interior STATEMAP Program, \$45,909, 9/15/2015–9/15/2016, Co-PI (PI: Paul Hanson).

Geologic mapping of the DuBois and Cornell Dam 7.5 minute quadrangles. Department of the Interior STATEMAP Program, \$65,623, 9/15/2014–9/15/2015, Co-PI (PI: Paul Hanson).

Preservation of cores from a potential petroleum province in northwest Nebraska. Department of the Interior National Geological and Geophysical Data Preservation Program, \$20,018, 9/15/2014–9/15/2015, PI.

Water Leaders Academy. Nebraska State Irrigation Association, \$21,302, 4-1/2012–3/31/2015, Co-PI (PI: Mark Burbach).

Geologic mapping of the Table Rock and Cotesfield 7.5 minute quadrangles. Department of the Interior STATEMAP Program, \$72,636, 9/1/2013–9/1/2014, Co-PI (PI: Paul Hanson).

Shallow nitrate verification study. Nebraska Department of Environmental Quality, \$14,705, 4/1/2011-12/31/2012, PI.

High-resolution imaging of the Platte River streambed using combined electromagnetic induction and hydraulic parameter estimation techniques. USGS Nebraska Water Resources 104B 2011, \$19,000, 3/1/2011-2/28/2012, PI.

Lower Platte North Natural Resources District Observation Well Program. Lower Platte North Natural Resources District of Nebraska, \$9,000, 8/1/2009-11/1/2011, PI.

Eastern Nebraska HEM Aquifer Mapping. Lower Platte South Natural Resources District of Nebraska, \$60,000, 7/15/2009-7/1/2010, Co-PI (PI: Paul Hanson).

Eastern Nebraska Water Resources Assessment Study, Ashland, Firth, and Oakland Bulletins. Lower Platte North Natural Resources District of Nebraska, \$84,500, 7/1/2009-7/1/2011, Co-PI (PIs: Paul Hanson, R.M. Joeckel, Sue Lackey).

Lower Salt Creek Groundwater Reservoir Modeling Project. Lower Platte South Natural Resources District of Nebraska, \$14,971, 4/1/2009-5/31/2010, PI.

Student Research Grants

2013 IAS Graduate Student Grant, \$1,000

2013 AAPG Foundation, R.E. McAdams Memorial Grant, \$2,500

2003 SEPM Weimer Student Research Grant. \$1,500

2003 Geological Society of America

2001 AAPG Foundation, Energy Minerals Grant, \$2,000

1999 Nebraska Geological Society, Yatkola-Edwards Research Grant, \$100

Invited Presentations

- 2017 University of La Plata, Argentina, *Planform Asymmetry and Stratigraphic Variability of River Delta Deposits*
- 2017 Ministry of Agroindustry, Buenos Aires, Argentina, *Aquifer Characterization and Groundwater Monitoring in Nebraska*
- 2017 Range Rights and Resources Symposium, *Groundwater and the Ogallala Aquifer: Discovery, Development, and Depletion of a Critical Resource*
- 2016 State of Delaware Board of Well Drillers, *The High Plains/Ogallala Aquifer: Discovery, Drilling, Development, and Depletion of a Critical Resource*
- 2016 Natural Resources Districts Annual Conference, *Nebraska Airborne Electromagnetics*
- 2015 Drinking Water Protection Workshop, *Hydrogeology for Community Water System Personnel*
- 2015 Guest appearance on NET video documentary *From Diggers to Drillers*, a program on Nebraska groundwater and its water-well drilling industry
- 2015 High Plains Aquifer: Sustainability for Food Production and Water Supply, UNL Nebraska Water Conference, *Geologic investigations of the northern High Plains aquifer: Historical review and recent advances*
- 2014 Kregel Windmill Museum, *Geology, groundwater, and wells: The story of Nebraska's subterranean connections*
- 2014 Nebraska Well Drillers Annual Conference and Trade Show, *A Primer on Nebraska Geology and Hydrogeology*
- 2014 Nebraska Planning and Zoning Association Meeting, *A Primer on Nebraska Geology and Hydrogeology*
- 2013 Governor's Water Funding Task Force (LB 517), *Nebraska water: Want amidst wealth*
- 2013 Wilber Crop Clinic, *Groundwater availability in Nebraska*, UNL Extension Saline County
- 2012 Water Law, Policy, and Science Conference, *Groundwater availability in Nebraska*, University of Nebraska-Lincoln
- 2012 Nebraska Department of Environmental Quality Brownbag Seminar, *Statewide groundwater monitoring program and status of Nebraska aquifer gains and losses*
- 2012 Nebraska Well Drillers Annual Conference and Trade Show, *Groundwater-level monitoring report*
- 2011 National Groundwater Association, *The impacts of drought on groundwater levels in Nebraska*
- 2011 Nebraska Agricultural Business Association Meeting, *Groundwater availability in Nebraska*
- 2011 Republican River Sustainability Task Force, *Groundwater availability in Nebraska*
- 2009 UNL Water Resources Advisory Panel, *Groundwater-level changes in Nebraska*
- 2007 Natural Resources Districts Water Conference, *Eastern Nebraska Water Resources Assessment*

Workshops, Training, and Student Lectures

- 2017 Nebraska GeoCloud Workshop
- 2011–2017 Nebraska Water Leaders Academy Annual Training Program
- 2015 Nebraska State Fair, *STEMing into the Future*, Science education event
- 2014 Soil and Water Resources Club, *Primer on hydraulic fracturing*
- 2014 Nebraska Well Drillers Association Geology Tour, Ogallala
- 2012 Nebraska Well Drillers Association Geology Tour, Columbus
- 2012 Nebraska Well Drillers Leadership Academy
- 2010, 2012 Field Techniques in Hydrogeology (graduate course), *Aquifer test procedures*
- 2010 Nebraska Well Drillers Association Geology Tour, Southeast Nebraska
- 2010 Groundwater Monitoring Field Training Program, Department of Environmental Quality

Service and Outreach

- 2017 UNL Graduate Fellowship Committee

2017 IANR advisory team for redesign of water display at Lake McConaughy visitors center
2014–2015 UNL Water Center Annual Water Symposium planning committee
2013 Geological Society of America North Central Section Meeting, Field trip co-chair
2013 Husker Harvest Days, “Raising our H2O IQ”
2013 Gretna Public Library summer reading program, Guest presenter
2012 Public screening of energy awareness film “Switch” at UNL, lead organizer
2011, 2012, 2014, 2015 North American Martyrs Elementary School, Classroom presenter on rocks and minerals
2010 School of Natural Resources Outreach Committee
2006 Midwest Ground Water Conference planning committee

Referee and Review Activities

2017 Peer reviewer, Marine Geology
2017 Peer reviewer, FONDECYT Program, National Council of Science and Technology of Chile
2016 Peer reviewer, Sedimentary Geology
2016 Peer reviewer, Geological Society of America field trip guidebooks
2013 Guidebook editor, Geological Society of America North Central Section Meeting
2012, 2014 Peer reviewer, US Geological Survey-National Institutes for Water Resources Competitive Grants Program
2009, 2010 Peer reviewer, Integrated Water Management Plan Program Fund, Nebraska Department of Natural Resources
2008 Referee, Geological Society of America Special Publication 441

Conference Abstracts and Presentations (*presenter)

Fraundorfer, W., **Korus, J.T.**, 2017, Investigating Mechanisms of Hydraulic Conductivity Transience in Sandy Streambeds. American Geophysical Union Fall Meeting, New Orleans, Louisiana.

Gilmore, T.E., **Korus, J.T.**, Pennisi, L., Martin, D., 2017, Needs assessment: Delivery of watershed science to locally-elected water resources managers. University Council on Water Resources Annual Water Resources Conference, Fort Collins, Colorado.

Korus, J.T., Fielding, C.R., 2017 Falling-stage stratal architecture illustrated in a depositional dip transect through the fluvio-deltaic Ferron Sandstone (Cretaceous) of southern Utah, USA. International Meeting of Sedimentology, Toulouse, France.

Korus, J.T., Fielding, C.R., 2017, Stratigraphic architectures of deltas formed during forced and normal regressions, Ferron Sandstone (Turonian), Southeast Utah, USA, Annual Meeting, American Association of Petroleum Geologists, Houston, Texas.

***Korus, J.T.**, Joeckel, R.M., Divine, D.P., Abraham, J.D., 2016, Cross-Cutting Buried Valleys at the Eastern Margin of the Northern High Plains Aquifer: Genesis, Evolution, and Geohydrologic Function, Geological Society of America Annual Meeting, Denver, Colorado.

***Korus, J.T.**, 2016, Baffled but not Befuddled: A Sedimentological Explanation of Hydraulic Barriers in Aquifers of Eastern Nebraska. Daugherty Water for Food Global Conference, Lincoln, Nebraska.

***Korus, J.T.**, Fielding, C.R., 2015, Controls on lateral facies variability in the Ferron “Notom” Delta (Turonian), western and southern Henry Mountains, Utah, U.S.A. Annual Meeting, American Association of Petroleum Geologists, Denver, Colorado.

***Korus, J.T.**, Fielding, C.R., 2014, Asymmetry in modern river deltas: patterns, controls, and stratigraphic effects. International Association of Sedimentologists, 19th International Sedimentological Congress, Geneva, Switzerland, Abstracts Book, p. 357.

- ***Korus, J.T.**, Chen, X.H., 2014, Field evaluation of electromagnetic induction for characterizing the variability of vertical hydraulic conductivity in streambed sediments. 48th Annual Meeting, North-Central Section, Geological Society of America, Lincoln, Nebraska.
- Divine, D.P., **Korus, J.T.**, 2014, Geophysical vs. traditional hydrogeologic investigations: making different scales and methods work together. 48th Annual Meeting, North-Central Section, Geological Society of America, Lincoln, Nebraska.
- Heckel, P.H., Joeckel, R.M., **Korus, J.T.**, 2014, Why aren't the Nebraska members of the Tecumseh Shale (Shawnee Group, Virgilian) recognized in the type Tecumseh Shale of Kansas? 48th Annual Meeting, North-Central Section, Geological Society of America, Lincoln, Nebraska.
- ***Korus, J.T.**, Joeckel, R.M., Heckel, P.H., 2014, New interpretation of the Tecumseh Shale and lower units of the Deer Creek Limestone in the middle Shawnee Group (Virgilian), northern Midcontinent, USA. 48th Annual Meeting, North-Central Section, Geological Society of America, Lincoln, Nebraska.
- ***Korus, J.T.**, Fielding, C.R., 2014, Abrupt Basinward Changes in the Stratigraphic Expression of a Sequence Boundary in the Ferron Sandstone (Turonian), Southeast Utah, USA. Rocky Mountain Section, American Association of Petroleum Geologists Annual Meeting, Denver, Colorado.
- ***Korus, J.T.**, Fielding, C.R., 2014, Sedimentology and Ichnology of a Lobe-Deflected Delta, Ferron Sandstone (Turonian), Utah, USA. Annual Meeting, American Association of Petroleum Geologists, Houston, Texas.
- Burberry, C.M., Joeckel, R.M., **Korus, J.T.**, 2012, Nebraska portion of the Midcontinent Rift System; from ancient aulacogen to modern metroplex. Annual Meeting, Geological Society of America, Abstracts with Programs, v. 44, p. 599.
- ***Korus, J.T.**, Joeckel, R.M., 2011, New insights into the basin-scale alluvial architecture of the Ogallala Group (Neogene, central Nebraska) using statistical analysis of grain size trends. Annual Meeting, Geological Society of America, Abstracts with Programs, v. 43, p. 547
- Joeckel, R.M., **Korus, J.T.**, Hanson, P.R., Divine, D., Olafsen-Lackey, S., 2011, Integrated helicopter electromagnetic and borehole interpretation of aquifers in alluvial valleys and under dissected till plains, Nebraska, USA. Annual Meeting, Geological Society of America, Abstracts with Programs, v. 43, p. 174.
- ***Korus, J.T.**, Burbach, M.E., 2011, The impacts of drought on groundwater levels in Nebraska. National Ground Water Association, Declining Groundwater Levels: Measuring, Monitoring, and Mitigation, Virtual Conference #5068.
- Divine, D.P., **Korus, J.T.**, Steele, G.V., Ehrman, R.L., 2011, Identification of potential nitrate sources to a shallow aquifer in southeastern Nebraska. Groundwater Foundation National Conference, Omaha, Nebraska.
- ***Korus, J.T.**, 2010, Groundwater flow model and analysis of management triggers for the Lower Salt Creek Aquifer, eastern Nebraska. Greater Platte River Basins Symposium Program with Abstracts, p. 24.
- Korus, J.T.**, Joeckel, R.M., 2010, Estuarine facies on a transgressed late Pennsylvanian interfluvial, eastern Nebraska, USA. Annual Meeting, Geological Society of America, Abstracts with Programs, v. 42, p. 430.
- Hanson, P.R., **Korus, J.T.**, Divine, D., 2010, Three-dimensional geology and hydrogeology of the Platte River valley near Ashland, Nebraska using helicopter electromagnetic (HEM) mapping. Annual Meeting, Geological Society of America, Abstracts with Programs, v. 42, p. 324.
- Divine, D., Steele, G.V., Smith, B.D., Ehrman, R.L., **Korus, J.T.**, 2009, Preliminary results from helicopter electromagnetic surveys over a paleovalley aquifer in eastern Nebraska. Annual Meeting, Geological Society of America, Abstracts with Programs, v. 41, p. 286.
- Joeckel, R.M., Hanson, P.R., Dillon, J.S., **Korus, J.T.**, Kuzila, M.S., 2008, Recent insights into Quaternary stratigraphy in southern Lancaster County Nebraska and environs. Annual Meeting, Geological Society of America, Abstracts with Programs, v. 40, p. 21.

- Cannia, J.C., Abraham, J.A., Smith, B.D., Steele, G.V., **Korus, J.T.**, 2007, Preliminary results of hydrogeological framework studies of surface water-ground water systems in eastern Nebraska using airborne and ground geophysics. Annual Meeting, Geological Society of America, Abstracts with Programs, v. 39, p. 162.
- Korus, J.T.**, Divine, D., 2007, The Eastern Nebraska Water Resources Assessment (ENWRA). Annual Meeting, Geological Society of America, Abstracts with Programs, v. 39, p. 525.
- Bodek, R.J. Jr., Eriksson, K.A., **Korus, J.T.**, Miller, D., 2005, Sequence stratigraphic expression of the waxing and waning of the Gondwanan ice sheet: Examples from the Carboniferous of the Appalachians. Annual Meeting, Geological Society of America, Abstracts with Programs, v. 37, p. 255.
- ***Korus, J.T.**, 2002, Incised-valley-fill architecture of the Lower Pennsylvanian New River Formation, West Virginia: 18th Annual Research Symposium of the Virginia Tech Graduate Student Assembly, Blacksburg, Virginia.
- ***Korus, J.T.**, Eriksson, K.A., 2002, The Lower Pennsylvanian New River Formation: A record of glacioeustasy in a low-accommodation foreland basin: SEPM Research Conference on Incised Valleys, Casper, Wyoming.
- ***Korus, J.T.**, Eriksson, K.A., 2002, A stratigraphic framework for predicting sandstone body geometry in fluvial and estuarine deposits of the New River Formation, West Virginia: North-Central/Southeastern GSA Joint Annual Meeting.
- ***Korus, J.T.**, Eriksson, K.A., 2002, Paleogeomorphology and facies architecture of Pennsylvanian trunk-tributary incised valley systems: New River Formation, southern West Virginia: Annual Meeting, American Association of Petroleum Geologists, Houston, Texas.
- Korus, J.T.**, 2001, Sequence stratigraphy of the predominantly nonmarine Lower Pennsylvanian New River Formation, Appalachian Basin, USA: American Association of Petroleum Geologists Bulletin, v. 85, p. 2054.
- ***Korus, J.T.**, Miller, D.J., Eriksson, K.A., 2001, Fluvial-estuarine deposition within Carboniferous incised valleys: Nonmarine response to relative sea level changes. 7th International Conference on Fluvial Sedimentology, Program and Abstracts, p. 159.
- ***Korus, J.T.**, 2001, Sequence stratigraphy of the predominantly nonmarine, Lower Pennsylvanian New River Formation. 6th Virginia Tech Geological Sciences Student Research Symposium, 2001 Abstracts with Program, p. 6.
- ***Korus, J.T.**, 2000, Estuarine deposition and tidal rhythmites of the Dakota Formation (Upper Albian), southeastern Nebraska. Symposium on Nebraska Stratigraphy, 120th Nebraska Academy of Sciences, Programs and Proceedings, p. 67.

Technical Documents

- Ground Water Management Area Annual Reviews, 2004 – 2007, Lower Platte South Natural Resources District
- Voluntary Cleanup Program Guidance Document, Nebraska Department of Environmental Quality

Field and Laboratory Experience

Geology and Hydrogeology

- Aquifer test procedures
- Streambed permeameter tests (in-situ and laboratory)
- Test-hole logging
- Rock and sediment coring (wireline and auger)
- Air permeameter tests
- Monitoring well design
- Groundwater-level monitoring
- Lithofacies analysis

Sequence stratigraphy
Geological mapping

Geophysics

Frequency domain electromagnetic induction
Wireline (borehole) geophysical logging
Ground-penetrating radar

Licenses

Professional Geologist, Nebraska, License number G-0312
Water Well Monitoring Technician, Nebraska Department of Health and Human Services (License #79414)
FAA Remote Pilot Certificate for Unmanned Aircraft (Certificate #3935307)

Professional Memberships

Geological Society of America
International Association of Sedimentologists
Society for Sedimentary Geology
American Association of Petroleum Geologists

Technical Skills

Three-dimensional geological modeling (GeoScene 3D, Pix4D, RockWorks, Profile Analyst)
Three-dimensional photogrammetry using unmanned aircraft
Applied geophysics (ground-penetrating radar, electromagnetic induction)
Numerical groundwater modeling software (GMS, Visual MODFLOW)
Mapping software (ArcGIS, Surfer)
Aquifer test software (AQTESOLV)
Sequence stratigraphy
Applied ichnology
Petroleum system evaluation

Collaborators & Other Affiliations

Lackey, S., Divine E., Hanson, P., Joeckel, R.M., Burbach, M., Goeke, J., Chen, X.H. (School of Natural Resources, UNL)
Burberry, C. (Department of Earth and Atmospheric Sciences, UNL)
Heckel, P. (University of Iowa)
Abraham, J.D., Cannia, J., (XRI Geophysics)
Hobza, C.M., Smith, B., Steele, G.V., Curtis, D. (U.S. Geological Survey)
Ehrman, D. (Lower Platte South Natural Resources District)
Kvale, E.P. (Devon Energy Corporation).

Graduate advisors:

Dr. Christopher Fielding, University of Nebraska-Lincoln (PhD advisor)
Dr. Kenneth A. Eriksson, Virginia Tech (MS advisor)